

ABSTRACT

A dielectric porcelain composition includes MgTiO_3 and Mg_2SiO_4 and satisfies $a + b = 1$ and $0 < b < 1$, wherein a denotes a molar ratio of MgTiO_3 and b denotes a molar ratio of Mg_2SiO_4 . It can include MgTiO_3 and CaTiO_3 and satisfy $a + c = 1$ and $0 < c \leq 0.15$, wherein a has the same meaning as shown above and c denotes a molar ratio of CaTiO_3 . It can also include MgTiO_3 , Mg_2SiO_4 and CaTiO_3 and satisfy $a + b + c = 1$, $0 < b < 1$ and $0 < c \leq 0.15$, wherein a , b and c have the same meanings as shown above. These compositions can be manufactured, with the content of Mg_2SiO_4 , the content of CaTiO_3 and the contents of Mg_2SiO_4 and CaTiO_3 adjusted, respectively. These compositions can be used as dielectric materials to manufacture dielectric resonators.